Appeal No. 96-3211 (ABC)
Application 07/928,717

APPLICANT(S): KI-YONG KIM

APJ TORCZON

APJ BARRETT

APJ FLEMING

DECISION: AFFIRMED-IN-PART

20 April 1999

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

This opinion (1) was not written for publication and (2) is not binding precedent of the Board.

Paper No. 43

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte KI-YONG KIM

Appeal No. 96-3211
Application 07/928,717

ON BRIEF[1]

Before BARRETT, FLEMING, and TORCZON, Administrative Patent Judges.

TORCZON, Administrative Patent Judge.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

FINDINGS OF FACT

We have reviewed the record in its entirety in light of the arguments of Applicant and the examiner. Our decision presumes familiarity with the entire record. A preponderance of the evidence of record supports each of the following fact findings.

[1] Counsel for Applicant failed to appear for the hearing scheduled for 9 a.m. on 5 August 1997. Cf. Paper 42 entitled "Transmittal of Confirmation of Oral Hearing Attendance".

A. The nature of the case

1. This is an appeal from the final rejection of claims 1-10 and 12-20. (Paper 28.) Claim 11 has been canceled and no other claims are pending. (Paper 24 at 1.)

2. The subject matter of the invention is an automatic switching circuit for an image recording system that switches from an intermittent recording mode to a continuous recording mode upon detection of motion. (Paper 1 at 1.)

3. Claim 10 defines the subject matter of the invention as follows:

> A method of automatically switching recording modes of a recording device, comprising:
>
> converting optical information representing objects into an electrical image signal;
>
> separating said electrical image signal into a composite image signal and a luminance signal;
>
> separating said luminance signal into a current luminance signal and a previous luminance signal and generating a difference signal representing differences between said previous luminance signal and said current luminance signal indicative of movement exhibited by the objects;
>
> detecting said movement by comparing said difference signal to a reference value;
>
> recording said composite image signal intermittently at a predetermined rate in the absence of detection of said movement; and
>
> recording said composite image signal continuously in response to said detection of said movement.

4. The examiner rejected claims 6, 9, and 15 under 35 U.S.C. § 112 as being indefinite. The rejection of claim 9 appears to rest on its dependence from claim 6. (Paper 24 at 2.) The examiner withdrew this rejection from claims 6 and 15. (Paper 29.) We presume this rejection has been withdrawn from claim 9 as well.

5. The examiner also rejected all of the claims on appeal under 35 U.S.C. § 103 (Paper 24 at 3) as having been obvious in light of the following references:

Folsom	4,001,881	4 Jan. 1977
Suzuki	JP 59-221094[2]	12 Dec. 1984
Niitsu	5,132,790	21 July 1992 (filed 27 Mar. 1991)

B. What the references teach

A person having ordinary skill in the art would have appreciated fact findings 6 to 14 at the time of invention.

6. Folsom teaches cameras supplying a video signal to a video recorder. (3:31-34.)

7. Recording may be in "time-lapse" (i.e., intermittent) mode or it may be in real-time (i.e., continuous) mode. (3:19-30.)

[2] We rely on a translation that Applicant provided for our understanding of this Japanese laid-open application.

8. Folsom's system switches from time-lapse mode to real-time mode "automatically" when an alarm button is pressed during an emergency. (4:31-48.)

9. Folsom does not teach detection of movement by any method or switching to real-time mode based on detection of motion.

10. Suzuki teaches "driving a [television] and a [videotape recorder] with the actuation of [a] sensor" activated by a trespasser. (Abstract.) Suzuki describes automatic recording on detection as "conventional". (2:10-12.)

11. Suzuki lists "[p]hotoelectric, ultrasonic, electroextraction, oscillation, or infrared type of sensors" as appropriate in his system. (3:3-4.) Many of these are directly (e.g., ultrasonic sensors) or indirectly (e.g., photoelectric sensors) motion detectors.

12. The two recording modes that Suzuki teaches are continuous and off, not intermittent and continuous. (6:9-7:1.)

13. Suzuki does not teach detection of motion using differences in a luminance signal over time.

14. Niitsu teaches that using a luminance frame difference signal to detect motion in a video signal is "conventional". (1:13-22.) Niitsu generates a difference signal in part by

subtracting a delayed luminance signal from an input luminance signal. (3:64-4:18.)

C. Other findings

15. The references reflect the level of skill in the art at the time of invention. Chore-Time Equip., Inc. v. Cumberland, 713 F.2d 774, 779, 218 USPQ 673, 676 (Fed. Cir. 1983). Applicant has not, on appeal, urged an alternative level of skill.

16. On appeal, Applicant has not presented any evidence of secondary considerations supporting patentability.

CONCLUSIONS OF LAW

A. Claim interpretation

1. Claim 10 is not written in step-plus-function language.

2. Claims 1-9 and 12-20 are written in means-plus-function language. Applicant has not directly challenged the equivalence of structures in the references except as specifically noted in this opinion.

B. Grouping of claims

3. Applicant states that each of the claims on appeal are argued separately and consequently stand or fall separately. (Paper 33 at 7.) Our review of Applicant's briefs indicates that the following groupings are argued separately with at least some specificity: 1; 2-4; 5, 6 and 9; 7; 8; 10; 12; 13, 14, and 17;

and 15, 16, and 18-20. Claims within these groupings stand or fall together.

B. Obviousness

4. Applicant argues that the proposed combination does not teach the movement discriminating means and the mode control means of claim 1, but only argues the mode control means limitation with specificity. (Paper 33 at 10-13.)

5. Applicant is correct that Folsom does not teach switching between the intermittent and continuous recording modes when motion is detected. We conclude, however, that the combination of Folsom with Niitsu and Suzuki does teach this limitation. Suzuki teaches the desirability of detecting intruders using various sensors including motion detectors. Niitsu teaches a motion detection system for use in a video system. Folsom teaches a video surveillance system with an intermittent mode to avoid wasting videotape while still recording as much as possible. A person having ordinary skill in the art would have been motivated to incorporate Folsom's videotape-saving mode of operation into an intrusion detection and recording system like Suzuki's. Niitsu would have shown the artisan how to do this using the video system itself instead of additional sensors.

6. Folsom does not teach away from the combination because it is Suzuki's purpose (intrusion detection) that would motivate the artisan to combine the references, not Folsom's (transaction monitoring) purpose. The problem of wasting video during non-alarm periods is the same in both situations, however, and provides the motivation to modify an intrusion detection system with an intermittent/continuous recording mode switch.

7. Independent claim 7 contains additional limitations. Moreover, Applicant specifically argues the differences between his disclosed circuit and structures in the references. (Paper 33 at 14.) The examiner relies on the general skill in the art (Paper 34 at 15), but fails to explain precisely what would have led the artisan to Applicant's circuits or their equivalents. Thus, we conclude that the examiner has failed to provide a basis for rejecting claim 7.

8. We reverse the rejection of claim 8 *pro forma* because claim 8 depends from claim 7.

9. Regarding claim 10, Applicant points out the difference signal limitation and the two recording modes without any argument as to why these limitations are not met.[3] (Paper 33

[3] In his reply brief, Applicant argues that claim 10 recites specific circuitry like claim 7. (Paper 37 at 11.) This argument finds no support in the language of claim 10. Moreover, unlike the other claims on appeal, claim 10 does not use means/step-plus-function language, so it is not presumed to

at 14.) We conclude that the combination of references meets these limitations. We have already found that Niitsu teaches generating a difference signal between successive components of a received luminance signal indicative of movement of an object. Finding 14, supra. We have also already explained how an artisan would have been led to use Niitsu's luminance frame difference signal as a motion detector to switch from intermittent mode to continuous mode in the combination of references. Conclusion 5, supra. Thus, we conclude that the combination meets all of the contested limitations of claim 10.

10. Applicant approaches claim 12 in much the same way as claim 10. Niitsu's motion detection means generates a motion detection signal. Suzuki uses a sensor signal, including motion detection signals, to change recording modes (on/off) in a surveillance system. Folsom teaches switching between an intermittent (videotape-saving) mode and a continuous mode in response to an alarm situation. See conclusion 5, supra. Applicant has not explained how the recited limitations (Paper 33 at 15, listing motion detection and two recording modes) overcome the combination. Thus, we conclude the combination renders claim 12 obvious as well.

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trigger the means-plus-function provisions of 35 U.S.C. § 112.

11. Applicant challenges the rejection of claims 2-4 for failing to account for the Applicant's specific circuit components. (Paper 33 at 17.) The relevant circuits are discussed at pages 9-12 of the specification. The examiner relies on Niitsu and skill in the art to teach these structures, but does not explain how Niitsu teaches precisely the same structures or their equivalents. We cannot sustain the rejection of claims 2-4 without a showing that Niitsu (in combination with the other references) teaches these elements.

12. Claims 5, 6, and 9 require gating means. The examiner has not clearly identified a structure in Niitsu or the other references that teaches this limitation. To the extent that the examiner is suggesting that gating means are inherent in the combination (Paper 34 at 17-19), we agree with Applicant that this is not a proper application of inherency. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

13. Regarding claims 13-20, Applicant again argues that the combination does not teach or suggest his particular circuits. (Paper 37 at 11.) Again, the examiner apparently relies on inherency to teach these elements. (Paper 34 at 18-19.) Niitsu, by itself or in combination with Folsom and Suzuki, lacks sufficient detail to determine whether its structures are the same as or equivalent to the structures Applicant discloses in

the specification. The examiner has not provided an adequate explanation of why Niitsu in combination with the other references would have led an artisan to the disclosed circuits.

DECISION

We affirm the examiner's rejection of claims 1, 10, and 12 under section 103. We reverse the examiner's rejection of claims 2-9 and 13-20 under section 103.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a). See 37 CFR § 1.136(b).

AFFIRMED-IN-PART

LEE E. BARRETT Administrative Patent Judge	)	
MICHAEL R. FLEMING Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
RICHARD TORCZON Administrative Patent Judge	)	

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Robert E. Bushnell
Suite 425
1511 K. Street, N.W.
Washington, D.C. 20005